

WEB CREDIBILITY: A LITERATURE BASED OVERVIEW

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ABSTRACT

Web sites provide enormous information to the users, especially the academic web sites. The credibility of information provided by the academic web sites becomes more important. Numerous measures are available for measuring the website. But, the contents of web sites are considered as web credibility. The webometrics and web credibility are synonymously used by the research. This study identified the difference between webometrics and web credibility. Further, the study provides different types of web credibility and its taxonomy. Various evaluation methods of web credibility have also been suggested. The study provides various evaluation methods. Thus, a brief overview on web credibility has been presented in this paper.

KEYWORDS: Web Credibility; Web Site Evaluations, Academic Website, Human Method of Evaluation & System Based Evaluation Methods

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INTRODUCTION

Today, web sites will propagate the progress of the organization, especially in the academic environment. They are the ambassadors between the user and academic institutions. These websites must be credible. These web sites are to be measured about the credibility. This study outlines a number of characteristics and attributes of the web credibility, specifically to academic sites, in order to show the quality requirement tree and a descriptive framework to specify them. These elements are used in a quantitative evaluation and comparison. The web credibility discussed in this paper has been indicative in nature and the intention is to provide web credibility in a nutshell.

WEB CREDIBILITY DEFINITION

Credibility is a subjective and an objective component. It is the believability of a source or message. It is evaluating the sources simultaneously in multiple dimensions. "Trustworthiness" and "Expertise" were the two main components of credibility. It is primarily to differentiate between trusts in relation to dependability. It is mainly connected to the idea of believability. Web credibility is one, which provides a trustworthy and provides knowledgeable information to those, who access the web site. (B.J. Fog)

Further it can be inferred the following terms as

- Credibility - Believability

- Credibility People – Believable people
- Credible information – Information can be relied upon; Accurate and Correct; Believable information
- Credibility of a system based product – discussing the perception of credibility

Trust is a closely related concept. It is a belief, reliability and dependability of a person or information. (Fog & Tseng, 1999). The credibility is a perceived quality that has to be induced in an object or in a person or in given information. It is accepted that credibility perceptions result from evaluating multiple dimensions simultaneously. Although the literature varies on how many dimensions contribute to credibility evaluations, it has identified the basic two key components of credibility viz. “*Trustworthiness*” and “*expertise*”.

While evaluating credibility, one can arrive overall credibility by taking an assessment of expertise and trustworthiness of the website.

- Trustworthiness is a key element of credibility. It is nothing but well intentioned, truthful, unbiased, etc. The other dimensions of credibility were perceived goodness or morality of the website of source of information.
- Expertise – another dimension of credibility. It includes well intentioned, truthful unbiased etc. It also captures the skill of the source and perceived knowledge.

OBJECTIVES

The objectives of the study are

- To identify the difference between webometrics and web credibility
- To identify the different types of web credibility
- To know the web credibility taxonomy
- To identify the evaluation methods of web credibility

Webometrics Vs Web Credibility

Webometrics and Web Credibility are used synonymously by the researchers. In reality, there exist differences. It is very difficult to demarcate these two concepts. However, an attempt has been made to distinguish between Webometrics and Web Credibility and the same is shown in Table 1.

Table 1: Difference between Webometrics and Web Credibility

Webometrics	Web credibility
Quantitative studies of the web have been named Webometrics	Qualitative studies of the web have been named web credibility
It is utility based and design based	It is use based and user based
<ul style="list-style-type: none"> • Web link structure analysis (e.g. Hyperlink, Self-link and External link) • Web usage analysis (e.g. exploiting log files for users searching, user expectations, browsing behavior), and • Web technology analysis (including search engine performance) 	<ul style="list-style-type: none"> • Usability • Content, • Functionality (services) • Efficiency and • Navigation
Evaluation can be made based on	Evaluations are user centric. Sociometric and

Bibliometric/scientometric method	psychometric analysis can be used
It is based on designer of the web site	It depends on website provider, design and content.

Web Credibility Type

Fog and Tseng (1999) provide a theoretical framework for studying Web credibility perceptions by separating them into four categories.

- Presumed Credibility
- Reputed Credibility
- Surface Credibility
- Earned Credibility

Presumed credibility judgments originate from assumptions made by the perceiver. The reputed credibility assessments depend on source labels, and the users make surface credibility judgments based on the layout or design of the website. The last and most reliable form of credibility is experienced credibility. The experienced credibility judgments are through the direct experience the user makes with a Web site.

Web Credibility Taxonomy

The web credibility can be viewed three dimensionally. One dimension represents personal/social. The other two dimensions are communication style and site/information. These three dimensions are shown in X, Y and Z axis in the figure 1.

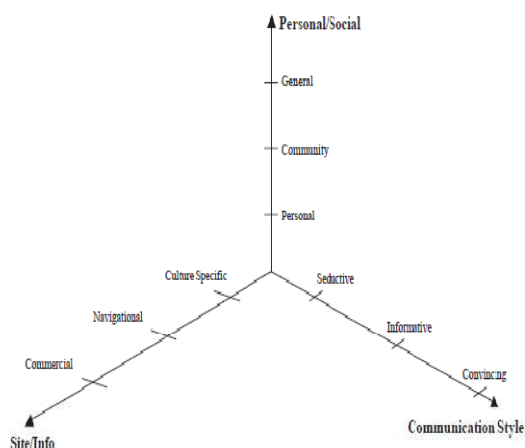


Figure 1: Taxonomy of Web Credibility

It can be seen from figure, Personal/Social dimension has three concepts namely general, community and personal. The communication style has three concepts such as selective, informative and convincing. The other dimension site/information has three concepts such as commercial, navigational and cultural specific.

Web Credibility Grid

The web credibility frame work can be combined with the four types of credibility such as presumed, reputed, surface and earned. Web credibility has many facets from brand perception of the organization to technical details

including web site that will increasing the credibility. Therefore, their requires a strenuous effort in designing the web site. The web credibility grid in table 2 shows many facets, from brand perception of the technical details of the web site. The developers can use these grids to identify the cells they have control over on designing to boost credibility in the areas such as making the site easy to navigate. This grid also provides the entire organization to gain a better understanding of how its parts must work together to create and maintain a credible website.

Table 2: Web Credibility Grid

	Presumed	Reputed	Surface	Experienced
Provider	The provider is a nonprofit organization.	The provider is recognized as an expert by others.	Users are familiar with the provider outside of the Web	Users with questions receive quick and helpful answers.
Content <ul style="list-style-type: none"> Information functionality 	The site has ads from reputable companies.	The content has been approved by an outside agency.	The site appears to have lots of relevant information.	The site's content has always been accurate and unbiased.
Design <ul style="list-style-type: none"> aesthetic information technical 	The site has search feature on the top of the page.	The site won an award for technical achievement.	The site has a pleasing visual design.	The site is easy to navigate.

Web Credibility Evaluation Method

The web credibility study has been carried out based on the following methods:

- Check list method – (i) Nancy Everhart's Web Page Evaluation Worksheet and (ii) Benjamin Keevil's Usability Index Checklist for Websites.
- Guidelines Method – (i) Stanford Guidelines for Web Credibility and (ii) Nigel Bevan's usability guidelines for academic websites
- Theo Mandel's Golden Rule Method for user interface design
- Usability Heuristics - Jakob Nielsen
- 10 C's for Evaluating Internet Resources – Betsy Richmond
- Five W's of Website evaluation – Kathy Schrock
- The quality criteria for Website Excellence using a 100 factor scoring system.

Accessibility of web, either an expert or first time evaluator, primarily to identify the disability of people with

- Individual users Vs Broad range of users
- Fixing the known barriers before approaching the users
- Focus on potential areas of concern

QUALITY FACTORS IN WEBSITE EVALUATION

Quality factors in previous academic website evaluation research work, analyzing the characteristics of existing website quality models and website usability studies, showed that the most common website quality characteristics in the models are:

- Usability
- Content
- Functionality (services)
- Efficiency and
- Navigation

Some of the quality characteristics in the models have similar semantics though they are given different names. For instance, the characteristic “services” in 2QCV3Q & MiLE is similar to the functionality characteristic in the Web-QEM model. Content in the Web-QEM and 7 Loci have a similar meaning with the Effective characteristic of the MINERVA model. A summary of the high level characteristics of the 4 website models reviewed are presented in Table 3 below:

Table 3: Previous Academic Websites’ Evaluation Works

Previous Academic Websites’ Evaluation Works	Quality Factors
L. Olsina, D. Godoy, G. Lafuente, and G. Rossi	Usability, reliability, efficiency, Functionality
S. Mustafa and L. Al-Zoua’bi,	Content, organization, readability, navigation and links, user interface design, performance and effectiveness, educational information
X. Wang and W. Huang	Design, navigation, web technology, usability, Functionality, content, branding
M. Lautenbach, I. Schegget, A. Schoute, and C. Witteman	Survey ability, find ability
C. Osborne and J. Rinalducci	Content, authority, organization, Accessibility
H. M.Selim	Consistency, flexibility and efficiency, interactive facilities to help communications, availability of essential course materials and understandability
Mangala Hirwade (2006) Jayasundari and R. Jeyshankar (2017)	To evaluate the home pages Site Access <ul style="list-style-type: none"> • Contact details, Authority details, Currency details, Website design factors, Content, Coverage, Status, Activities Ease of Navigation, Provision of User Support links, Expertise criteria, Library related factors, Links to other websites and Download speed

Evaluation Using Human vs. Computers

Normally, websites are evaluated using manual method and computer method. The various techniques used in evaluation are shown in Table 4.

Table 4: Evaluation Technique – Human Vs Computer

S. No.	Evaluation Techniques Using Humans	Evaluation Techniques Using Computers
1	Checklist Approach	Scaffolding tool Approach
2	Prominence – Interpretation Factors	Credibility seal programs
3	Contextual Approach	Digital signatures
4	Cognitive Approach	Machine Learning
5	Motivation – Centered Approach	Platform for Internet content selection
6	Social and Heuristic Approach	Collaborative filtering and peer-review

Table 4: Contd.,		
7		Semantic Web
8		Visual cues approach
9		Credibility ratings systems

EVALUATION CRITERIA

The criteria for evaluation were made based on the high level quality factor, and their sub level quality factors are shown in Table 5

Table 5: Evaluation Criteria

S. No.	High Level Quality Factor	Sub Level Quality Factors
1	Usability	Understandability; Learn ability; interactivity; Operability; Interface attractiveness and Multiple Language support
2	Content	Relevance of information; Accuracy of information; Up-to-date of information; Authority and Identity
3	Reliability	Fault tolerance; Recoverability and Availability
4	Efficiency	Time Behavior; Accessibility
5	Functionality	Navigation; Search and Suitability

Check List Methods

There exist several check list methods. The check list methods normally used for evaluating the web site were:

- Stanford Guidelines for Web Credibility;(www.webcredibility.org/guidelines)
- 39 Factors: Website Credibility Checklist; <http://conversionxl.com/website-credibility-checklist-factors/>
- Cornell University Library Olin and Uris Libraries for Evaluating Web Sites: Criteria and Tools <https://olinuris.library.cornell.edu/ref/research/webeval.html>and
- The Ten Nielsen's Heuristics for User Interface Design and Evaluation http://www.useit.com/papers/heuristic/heuristic_list.html

Based on the check list method stated above, a model check list has been developed, and the same has been indicated as Gopal Krishnan and Nageswara Rao' s Evaluating Academic Web Sites in Appendix –A

CONCLUSIONS

This study identified the difference between webometrics and web credibility. Further, the study provides different types of web credibility and its taxonomy. The study provides various evaluation methods. Based on various evaluation methods, web credibility evaluation check list for academic website has been suggested.

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APPENDIX -A

Gopal Krishnan and Nageswara Rao's Evaluating Academic Web Sites: A Checklist

Table 6: General Features of the Website

Use of Websites	Difficult <input type="checkbox"/>	Very Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
About its progress	Unhelpful <input type="checkbox"/>	Less cooperative <input type="checkbox"/>	To some extent cooperative <input type="checkbox"/>	Co-operative <input type="checkbox"/>	Helpful <input type="checkbox"/>
Learning to use the websites	Very Difficult <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Learning to use the websites	Very Difficult <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Exploring new features by trial and error	Very Difficult <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Performing tasks is straightforward	Never <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Forever <input type="checkbox"/>	At all times <input type="checkbox"/>	Always <input type="checkbox"/>
Website Loading	Very Slow <input type="checkbox"/>	Slow <input type="checkbox"/>	Quick <input type="checkbox"/>	Fast Enough <input type="checkbox"/>	High Speed <input type="checkbox"/>
Designed for all levels of users	Never <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Forever <input type="checkbox"/>	At all times <input type="checkbox"/>	Always <input type="checkbox"/>

Table 7: Common Features of the Website

Opinion of Websites	Frustrating <input type="checkbox"/>	Very Irritating <input type="checkbox"/>	Not so Irritating <input type="checkbox"/>	Fulfilling <input type="checkbox"/>	Satisfying <input type="checkbox"/>
Use of terms throughout websites	Inconsistent <input type="checkbox"/>	Inherent <input type="checkbox"/>	Uniform <input type="checkbox"/>	Coherent <input type="checkbox"/>	Consistent <input type="checkbox"/>
Prompts for input	Confusing <input type="checkbox"/>	Unclear <input type="checkbox"/>	Not so clear <input type="checkbox"/>	Clear <input type="checkbox"/>	Very Clear <input type="checkbox"/>
Error Messages	Unhelpful <input type="checkbox"/>	Less cooperative <input type="checkbox"/>	To some extent cooperative <input type="checkbox"/>	Co-operative <input type="checkbox"/>	Helpful <input type="checkbox"/>
Help messages on the Screen	Unhelpful <input type="checkbox"/>	Less cooperative <input type="checkbox"/>	To some extent cooperative <input type="checkbox"/>	Co-operative <input type="checkbox"/>	Helpful <input type="checkbox"/>
Compatibility	Very Difficult <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>

Table 8: Website Design

Views of websites	Terrible <input type="checkbox"/>	Horrible <input type="checkbox"/>	To some extent horrible <input type="checkbox"/>	Pleasing <input type="checkbox"/>	Wonderful <input type="checkbox"/>
Images in website	Dull <input type="checkbox"/>	Boring <input type="checkbox"/>	Not so boring <input type="checkbox"/>	Exciting <input type="checkbox"/>	Stimulating <input type="checkbox"/>

Table 8: Contd.,					
Structure of the websites	Rigid <input type="checkbox"/>	Inflexible <input type="checkbox"/>	Easy <input type="checkbox"/>	Extensible <input type="checkbox"/>	Flexible <input type="checkbox"/>
Reading Characters on the Page	Hard <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Organization of Information	Hard <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Sequence of Page	Hard <input type="checkbox"/>	Difficult <input type="checkbox"/>	Not so difficult <input type="checkbox"/>	Simple <input type="checkbox"/>	Easy <input type="checkbox"/>
Terminology is intuitive	Never <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Forever <input type="checkbox"/>	At all times <input type="checkbox"/>	Always <input type="checkbox"/>
Position of messages on screen	Inconsistent <input type="checkbox"/>	Inherent <input type="checkbox"/>	Uniform <input type="checkbox"/>	Coherent <input type="checkbox"/>	Consistent <input type="checkbox"/>
Sound associated with Website	Detracts Value <input type="checkbox"/>	Less Value <input type="checkbox"/>	Neutral <input type="checkbox"/>	Sums of Value <input type="checkbox"/>	Adds Value <input type="checkbox"/>

Table 9: Most Common Things that are Attempted to do on this Website

Factor	No Opinion	Poor	Average	Good	Excellent
To learn about the University	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To find contact information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To find research publications or reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To find under / post graduate courses or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To find about Ph.D programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To find out about library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 10: Features of URL

Factor	Poor	Fair	Good	Very Good	Excellent
Accessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consistency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ease of use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permanence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uniqueness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Usefulness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 11: Website Design, Navigation and Content Organization

Factor	Poor	Fair	Good	Very Good	Excellent
Individual pages are well designed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This website is visually appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to move from one page to another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Navigation is very easy through the links or menu which is easily recognizable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The overall organization of the site is easy to understand and hence easy to find desired information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The content of the website met my expectations and interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language and terminology used in this website is clear and familiar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 11: Contd.,					
I was able to complete my task in a reasonable amount of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The website is allowing to open any new browser windows when I am moving around	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Likely to use this website in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintained and up-to-date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 12: User Interface Design

Factor	Strongly disagree	Disagree	Un decided	Agree	Strongly Agree
The website's interface design is attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The colours used in the website is comfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No feature that irritates the user	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This website has a consistent feel and look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This website does not contain too many Web advertisements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The design makes sense and it is easy to learn how to use it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 13: Opinion on Academic Information

Factor	Strongly disagree	Disagree	undecided	Agree	Strongly Agree
It provides current information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It provides hyperlinks to related information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is convenient to locate the sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy to copy and edit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is freely available on the Web	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It can be accessed any time / any where	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 14: General Information about Library Website

Factor	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
Library is to have separate website / Web page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library website have separate site / sub-site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library website have multiple web pages / single web page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hyperlink for library website / Web page (s) appear under Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library website / Web page(s) provide updated information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 15: Activities Organised Information in Website

Factor	Strongly disagree	Disagree	undecided	Agree	Strongly Agree
Conferences / Training / Workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Educational Courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Literacy Programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Refresher Course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 16: Evaluating the Efficiency

Factor	Dis agree	No Opinion	Agree
It is easy to find the information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It was easy to use the site on your first visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy to navigate through this website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The design of this website is appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clicking on links takes me to what I expect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The text is clear and easy to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The site takes a long time to download	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The site has been updated frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization of information on the website pages is clear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 17: Opinion about URL

Factor	Strongly disagree	Disagree	Un decided	Agree	Strongly Agree
Reliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authenticated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Available in Future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standard Methods to Cite the URLs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to Locate the URLs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commonly Available at the Same URL's Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Need Some Permanent Identification for Evert Web Document	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have Permanent Identification Address	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 18: Reason for Inaccessibility

Factor	Strongly disagree	Disagree	Un decided	Agree	Strongly Agree
Low bandwidth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Misspelled in URLs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Http errors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Server down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
URL is currently inactive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lengthy URLs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 19: Performance Effectiveness

Factor	Strongly disagree	Disagree	Un decided	Agree	Strongly Agree
Less time to download a file or open a page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distinguish between visited and not visited links	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
access this website most of the time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Must respond to the actions as expected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Must be efficient to use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provides clear and useful messages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 20: Educational Purpose of Website

Factor	Strongly disagree	Disagree	Un decided	Agree	Strongly Agree
I can easily access the registration page and I can easily register for semester.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I need to register, the website provides information about what the courses are offered and who is teaching the courses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This website is regularly updated in terms of personnel and course information in order to keep their information up-to-date.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can easily contact with my instructors because this website provides information about instructors office location and hours and e-mail addresses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This website suffers from problems during registration process for students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know who I can contact for more information about anything in this website.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 21: Content Organisation of Library

Factor	Poor	Fair	Good	Very Good	Excellent
Introduction or historical details of the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mission statement /aim/ objective/ purpose of the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Library collection information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
electronic resources (e-journals & databases, etc.) subscribed by the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic resources (e-journals & databases, etc.) subscribed by the library accessed online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information regarding print / current journals subscribed by the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
information regarding e-books (ebrary) subscribed by the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ph.D. theses / dissertations to the users of the library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional repositories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web OPAC / Online catalogue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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